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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,436	12/03/2003	Curtis N. Potter	9308-1-2003	6831
7590		04/05/2007	EXAMINER	
Curtis N. Potter		MAPLES, JOHN S		
9308 Rolling Oaks Trail		ART UNIT		
Austin, TX 78750		PAPER NUMBER		
		1745		
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/05/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/727,436

Applicant(s)

POTTER ET AL..

Examiner

John S. Maples

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 ~~is~~ are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-33 ~~is~~ are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Art Unit: 1745

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference characters not mentioned in the description: #235 and #245. It is also noted that it appears that numeral 235 should be for the oxidant and numeral 245 should be for the fuel. Also, the electrodes are not mentioned in the present specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 1745

All of claims 1-33 should be thoroughly and completely reviewed and amendeded to conform with the above statute. Following are only some of the problems with the claims.

For example, it is unclear what is meant by the term "integral" found in line 3 of claim 1. To what element or elements does this word refer and to what element or elements are integral? The entire expression "integral channeled top plate feeding fuel and oxidizer manifold supply chamber" is unclear and indefinite and requires revision. The word "structures" found in line 4 does not find proper antecedent basis because it is not known what element(s) this word encompasses. Also, is the monolithic substrate mentioned in line 5 of claim 1 the same as the monolithic substrate mentioned in line 4 of this claim? (Claim 1 is also objected to because of the wording in the beginning of the claim-"We claim". This language typically appears before the claimed subject matter as a previous paragraph.)

In claim 2, line 2, is the monolithic substrate the same as the monolithic substrate mentioned in claim 1 or is this a different one? Clarification is required.

Claim 3, line 2, the expression "may be" is indefinite and unclear and requires amendment.

Claim 4, line 2, is the monolithic substrate the same as the monolithic substrate mentioned in claim 1 or is this a different one?

In claim 5, line 1, the wording "described" is unclear and needs to be revised.

Claims 6, 8, 10, 11, 13, line 1, it is not known to which substrate this claim is referencing. Ditto for line 2 of claim 19, line 2 of claim 22 and line 2 of claim 31.

Art Unit: 1745

Claim 12, line 1, is the claimed "monolithic semiconductor substrate" the same as one of the monolithic substrates in claim 1 or is this a different substrate? Clarification is required.

In claim 14, line 1, the expression "functional elemental parts" does not find antecedent basis. It also it not known to which elements this expression references? Clarification is required.

Claim 15, line 1, "fuel cell structure" does not find antecedent basis.

In claim 16, line 1, there is no antecedent basis for "fuel source".

Claim 17, there is no antecedent basis for "oxidizer source".

In claim 21, line 1, "electrical conductors" does not have proper antecedent basis.

The expressions "common" and "standard" found in claims 23-25 are unclear and require deletion or revision.

The term "subtractive removal" in line 1 of claim 26 does not find antecedent basis and requires amendment.

The expression "subtractive feature formation" found in line 1 of claim 27 does not have antecedent basis.

Are the anode and cathode connector lines in claim 28 the same as the extractor lines in claim 1?

Claim 29 is unclear because it is not known the relationship the inert corrosion barrier has with the other elements previously claimed. Clarification is required.

Claim 30, line 1, "membrane material" is unclear as to which element is being referenced?

Art Unit: 1745

There is no antecedent basis for "electrode material" found in line 1 of claim 31.

Claim 32, the expression "conductive elements" does not find proper antecedent basis. In addition, "conventional means" is indefinite and requires amendment.

In claim 33, the expression "metallic layers" does not find antecedent basis.

Claims 7, 9, 18, 19 and 20, dependent on claim 1, fall therewith.

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-33 are rejected under 35 U.S.C. 101 because the disclosed invention is inoperative and therefore lacks utility.

Applicant has used the wording "consisting of" to claim the fuel cell and therefore no further elements than what is set forth in the claims and make up the fuel cell.

Applicant has only claimed one electrode catalyst and the fuel cell would not work if only one electrode had electrode catalyst.

6. In view of the above indefiniteness and lack of utility of the presently claimed subject matter, it was not possible to understand the metes and bounds of applicant's invention and so a prior art search could not be carried out.

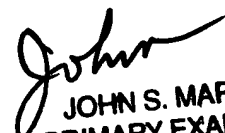
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John S. Maples whose telephone number is 571-272-1287. The examiner can normally be reached on Monday-Thursday, 6:15-3:45, and every other Friday.

Art Unit: 1745

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JSM/4-2-2007


JOHN S. MAPLES
PRIMARY EXAMINER